

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/057573 A1

Reg.

(51) International Patent Classification⁷: G10L 15/16

(21) International Application Number:
PCT/EP2002/014718

(22) International Filing Date:
23 December 2002 (23.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): LO-
QUENDO S.P.A. [IT/IT]; Via Nole, 55, I-10149 Torino
(IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GEMELLI, O,
Roberto [IT/IT]; Loquendo S.P.A., via Nole, 55, I-10149
Torino (IT). ALBESANO, Dario [IT/IT]; Loquendo
S.P.A., Via Nole, 55, I-10149 Torino (IT).

(74) Agents: BATTIPEDE, Francesco et al.; Pirelli S.p.A.,
Viale Sarca, 222, I-20126 Milan (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SK, SI, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZM, ZW.

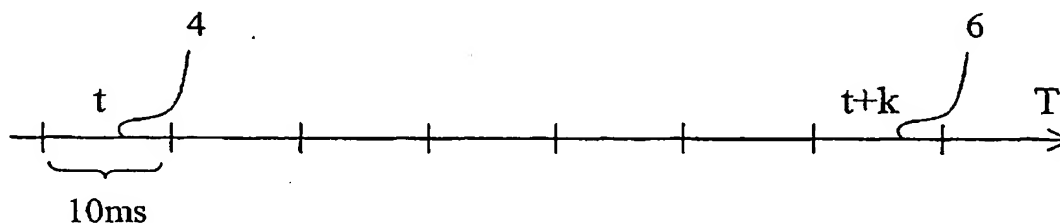
(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF OPTIMISING THE EXECUTION OF A NEURAL NETWORK IN A SPEECH RECOGNITION SYS-
TEM THROUGH CONDITIONALLY SKIPPING A VARIABLE NUMBER OF FRAMES



(57) Abstract: A method of optimising the execution of a neural network in a speech recognition system provides for conditionally skipping a variable number of frames, depending on a distance computed between output probabilities, or likelihoods, of a neural network. The distance is initially evaluated between two frames at times t and $t+k$, where k is a predetermined maximum distance between frames, and if such distance is sufficiently small, the frames comprised between times t and $t+k$ are calculated by interpolation, avoiding further executions of the neural network. If, on the contrary, such distance is not small enough, it means that the outputs of the network are changing quickly, and it is not possible to skip too much frames. In that case the method attempts to skip less frames, calculating and evaluating a new distance.

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